

# Super Cloud Library: Empowering Data Management, Diagnosis, and Visualization of Cloud-Resolving Models (CRM) with Spark and Hadoop (SCL)

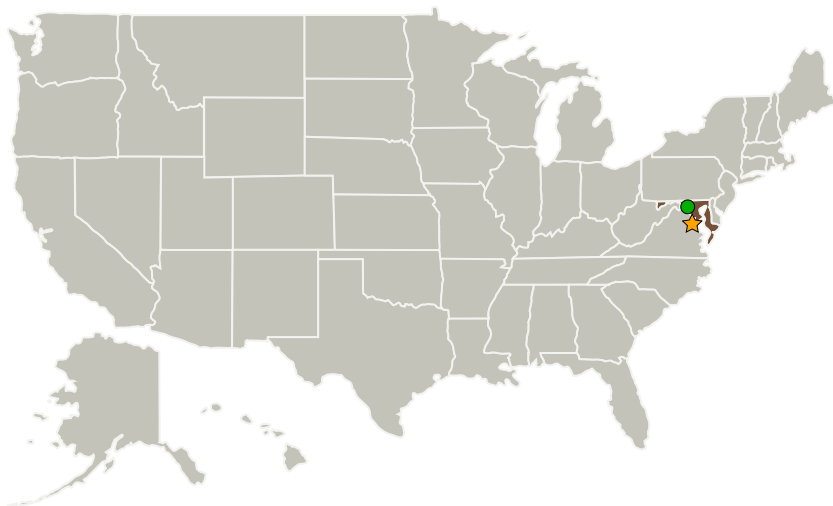
Completed Technology Project (2015 - 2017)



## Project Introduction

Improve CRM output usability by science community by accelerate visualization of CRM output Enable intercomparisons among runs of large volumes of CRM sensitivity experiments with observational measurements, diagnose key parameters for cloud-precipitation process, and demonstrate the value to distribute, visualize, analyze and intercompare CRM output and data with Goddard Cumulus Ensemble (GCE) and NASA Unified Weather Research and Forecast (NU-WRF) models using National Center for Climate Simulation (NCCS).

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★ NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
● Goddard Space Flight Center(GSFC)	Supporting Organization	NASA Center	Greenbelt, Maryland



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## Primary U.S. Work Locations

Maryland

## Organizational Responsibility

### Responsible Mission Directorate:

Science Mission Directorate (SMD)

### Lead Center / Facility:

NASA Headquarters (HQ)

### Responsible Program:

Earth Science

## Project Management

### Program Director:

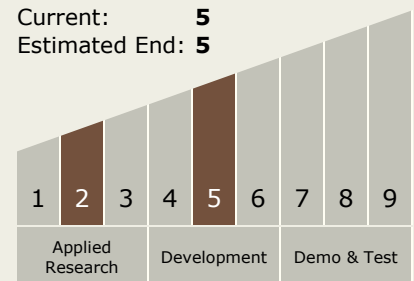
George J Komar

### Principal Investigator:

Wei-kuo Tao

## Technology Maturity (TRL)

Start: 2  
Current: 5  
Estimated End: 5



## Technology Areas

### Primary:

*Continued on following page.*

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## Technology Areas (cont.)

- TX11 Software, Modeling, Simulation, and Information Processing
  - └ TX11.4 Information Processing
    - └ TX11.4.4 Collaborative Science and Engineering

## Target Destination

Earth